

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

**Claim 1. (Previously Presented)** An isolated polynucleotide comprising a liver-specific expression control sequence from a fish; wherein said expression control sequence modulates expression of a vertebrate liver fatty acid binding protein (L-FABP).

**Claim 2. (Canceled).**

**Claim 3. (Currently Amended)** The isolated polynucleotide of claim [[2]] 1, wherein said fish is a zebrafish.

**Claim 4. (Previously Presented)** The isolated polynucleotide of claim 1, wherein said polynucleotide comprises binding sites for HFH(1) having the nucleotide sequence of SEQ ID NO:4, HFH(2) having the nucleotide sequence of SEQ ID NO:5, HNF-1 $\alpha$  having the nucleotide sequence of SEQ ID NO:6, and HNF-3 $\beta$  having the nucleotide sequence of SEQ ID NO:7.

**Claim 5. (Previously Presented)** The isolated polynucleotide of claim 4, further comprising binding sites for PDX1 having the nucleotide sequence of SEQ ID NO:8 and/or PDX2 having the nucleotide sequence of SEQ ID NO:9.

**Claim 6. (Previously Presented)** The isolated polynucleotide of claim 1, wherein said liver-specific expression control sequence comprises the nucleic acid sequence of SEQ ID NO:1 or a functional variant thereof having at least 80% homology to said nucleic acid sequence.

**Claim 7. (Previously Presented)** The isolated polynucleotide of claim 6, wherein said nucleic acid sequence is isolated from upstream region of a gene encoding a zebrafish L-FABP.

**Claim 8. (Previously Presented)** The isolated polynucleotide of claim 6, wherein said nucleic acid sequence of SEQ ID NO:1 or a functional variant thereof comprises binding sites for HFH(1) having the nucleotide sequence of SEQ ID NO:4, HFH(2) having the nucleotide sequence of SEQ ID NO:5, HNF-1 $\alpha$  having the nucleotide sequence of SEQ ID NO:6, and HNF-3 $\beta$  having the nucleotide sequence of SEQ ID NO:7.

**Claim 9. (Previously Presented)** The isolated polynucleotide of claim 8, further comprising binding sites for PDX1 having the nucleotide sequence of SEQ ID NO:8, and/or PDX2 having the nucleotide sequence of SEQ ID NO:9.

**Claim 10. (Previously Presented)** The isolated polynucleotide of claim 6, wherein said expression control sequence comprises the nucleic acid sequence of SEQ ID NO:2 or a functional variant thereof having at least 80% homology to said nucleic acid

sequence; wherein said nucleic acid sequence of SEQ ID NO:2 includes said nucleic acid sequence of SEQ ID NO:1.

**Claim 11. (Previously Presented)** The isolated polynucleotide of claim 6, wherein said expression control sequence comprises the nucleic acid sequence of SEQ ID NO:3 or a functional variant thereof having at least 80% homology to said nucleic acid sequence; wherein said nucleic acid sequence of SEQ ID NO:3 includes said nucleic acid sequence of SEQ ID NO:1.

**Claim 12. (Previously Presented)** A recombinant construct comprising a core promoter and the isolated polynucleotide of claim 1; wherein said polynucleotide is operably linked to a heterologous reporter sequence.

**Claim 13. (Original)** The recombinant construct of claim 12, wherein said reporter sequence encodes a green fluorescent protein (GFP).

**Claim 14. (Previously Presented)** The recombinant construct of claim 12, wherein said core promoter is one selected from the group consisting of a core promoter of zebrafish, a SV40 promoter, a CMV promoter, or a RSV promoter.

**Claim 15. (Withdrawn)** A method for detecting L-FABP promoter activity in a eukaryotic cell comprising: introducing said recombinant construct of claim 12 into said eukaryotic cell, and detecting the presence and/or activity of said reporter sequence in the

cell.

**Claim 16. (Withdrawn)** A transgenic fish whose somatic and germ cells contain at least one genomically integrated copy of said recombinant construct of claim 12, wherein said reporter sequence expresses an expression product in a liver of said fish, both spatially and temporally during development of said fish.

**Claim 17. (Withdrawn)** The transgenic fish of claim 16, wherein said fish is zebrafish.

**Claim 18. (Withdrawn)** The transgenic fish of claim 16, wherein the reporter encodes a green fluorescent protein (GFP).

**Claim 19. (Withdrawn)** A method for making a transgenic fish, comprising introducing said recombinant construct of claim 12 into a fish embryo, and allowing said fish embryo to develop into said fish; wherein said recombinant construct is integrated into a genome of said fish.

**Claim 20. (Withdrawn)** The method according to claim 19, wherein said fish is zebrafish.

**Claim 21. (Withdrawn)** A method for identifying an agent that enhance or suppress liver development comprising: microinjecting said agent to an embryo of said transgenic zebrafish of claim 18; allowing said transgenic zebrafish embryo to grow; and

analyzing said liver development during said growth of said transgenic zebrafish visually or under a fluorescent microscope.

**Claim 22. (Withdrawn)** The method according to claim 21, wherein said liver development is further analyzed in vitro by isolating liver cells from said transgenic zebrafish.

**Claim 23. (Withdrawn)** A method for identifying a gene that affects liver development comprising: microinjecting an inhibitor of said gene to an embryo of said transgenic zebrafish of claim 18; allowing said transgenic zebrafish embryo to grow; and monitoring said liver development during said growth of said transgenic zebrafish visually or under a fluorescent microscope.

**Claim 24. (Withdrawn)** The method according to claim 23, wherein said inhibitor of said gene is morpholino antisense oligonucleotides and said gene is hhex and zXbp-1.

**Claim 25. (Withdrawn)** A method for identifying a mutant that generates a liver disease comprising: microinjecting a mutagen to or UV-irradiating an embryo of said transgenic zebrafish of claim 18; allowing said zebrafish embryo to grow; and selecting a mutant by monitoring a progression of said liver disease during said growth of said transgenic zebrafish visually or under a fluorescent microscope.

**Claim 26. (Withdrawn)** The method according to claim 25, wherein said liver disease is liver necrosis.

**Claim 27. (Withdrawn)** The method according to claim 26, wherein said liver necrosis is due to lumpazi, gammler, and tramp mutations.

**Claim 28. (Withdrawn)** The method according to claim 26, wherein said liver necrosis is due to befeater mutation.

**Claim 29. (Withdrawn)** The method according to claim 25, wherein said liver disease is liver cancer.